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Quantitative Data Collection and Analysis

In USAID/Zimbabwe

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Executive Summary

This report concerns USAID/Zimbabwe's current support for the collection and analysis of quantitative data to 1) meet program and project information needs and 2) to develop the capacities of GOZ ministries to use quantitative data for administrative and planning purposes. Information for this report was obtained from interviews with one USAID/Zimbabwe officer, AID/Washington staff who had worked in the mission, two consultants who have assisted the GOZ improve its information systems, and various supporting documents. This report is one in a series of six which will be used to develop a typology of USAID mission capacity for in-house data use and for facilitating data use in host country ministries. The main findings of the report are:

1) The capacity of the GOZ for data collection and analysis is substantially greater than that which exists in many other developing countries including those which are at a comparable level of development. Despite the loss of some government staff during and after the war, the GOZ has retained sufficient numbers of middle and senior level staff essential for improving data related activities. GOZ operations are reasonably well supported by a variety of automated data processing equipment, but to develop government services as planned, additional equipment will be needed. In general, the GOZ has a ^{favorable} very/orientation toward data collection and the use of quantitative analysis to improve government functions.

2) The information bases of the GOZ reflect the dualized structure of the country's economy. Ample data of high quality are routinely collected on economic conditions in the modern sector. Conversely, there is a dearth of reliable data on virtually all aspects of the traditional economy. It will be vitally important for the GOZ to fill this significant information gap if it is to extend government services to the traditional sector on an efficient and cost-effective basis.

3) USAID/Zimbabwe's program will support significant improvements in the collection and analysis of quantitative data for administrative and planning purposes in the education/vocational training and agriculture sectors. The mission's use of sector funding as opposed to a project level approach is premised on the ability of the GOZ to independently design, implement and evaluate development projects. The information requirements for USAID/Zimbabwe's sector funded program differ from those of programs which operate on a project level approach. In general, the mission will require data which are a) comprehensive in terms of geographic and sector-wide coverage; b) which allow analysis of the GOZ's "growth with equity" objective; and c) which are as statistically valid as mission resources and GOZ capabilities allow.

4) the evaluation plan for the Basic Education and Skills Training Sector Program is without exception the clearest articulation of criteria to be used to assess program effectiveness yet encountered.

The evaluation plan for BEST could serve as an example of standards to be followed by other sector programs and individual projects which plan to collect baseline and follow-up data for project evaluation purposes.

6) USAID/Zimbabwe's data related activities warrant monitoring because of their potential utility for the Agency. AID might improve its investment in data collection and analysis by shifting the emphasis from a project-by-project approach to the sector level.

1. USAID/Zimbabwe's Program and Data Requirements for Sector Funding

1.1 Zimbabwe's Current Development Needs

Zimbabwe's present level of economic development combined, on the one hand, with the country's potential for continued growth and, on the other, with the urgency of addressing extreme economic and social inequalities creates development assistance needs which are atypical of most African countries. The exceptional circumstances of Zimbabwe are in large part the result of patterns of development initiated during the colonial period which have until only recently with the gaining of independence and the establishment of majority rule been perpetuated by past government policies. Unlike other countries in Southern Africa, Zimbabwe has a very diversified economy which integrates commercial agriculture and mining with a strong industrial - commercial base. Commercial agriculture not only contributes to meeting domestic food demand, but also is an important source of foreign exchange. Zimbabwe's agricultural production has, at least until the recent drought, been a key element in regional food security. Agriculture and mining provide important raw materials for the country's industries. A recent (1979-80) Census of Production identified some 6,200 different items being manufactured in Zimbabwe. Forty percent of the country's agricultural inputs, forty percent of mining equipment and supplies, and seventy-five percent of construction materials are manufactured domestically. The importance of the private sector is apparent in the fact that it generates ninety-six percent of the country's GDP, ninety-eight percent of domestic

savings, more than ninety-five percent^{of}/tax revenues and ninety-seven percent of export earnings. Largely due to Zimbabwe's industrial and commercial development, the country has an annual income per capita of US\$775 making it a lower middle income nation. These and other macro-economic indicators suggest that in comparison to most other African countries, Zimbabwe has a greater potential for sustained growth given political stability, fairly favorable world market conditions and judicious policies on the part of the government.

However, national aggregate statistics and, in particular, macro-economic measures belie the pronounced dualism of Zimbabwe's economic and social structure. As a result of discriminatory policies of the colonial and UDI governments, the majority of Zimbabweans (roughly 60%) remain outside of the modern sector. Moreover, the disparities between the traditional and modern sectors are enormous. For example, it is estimated that the average income per capita of those working in the modern sector is twenty-eight times larger than those in the traditional sector. Similarly, commercial agriculture is dominated by the white minority, yet the 6,000+ commercial farms of Zimbabwe include 40% of the total farmland and 70% of the country's best agricultural lands. Comparable disparities exist in the social development of the country, such as grossly unequal access to educational and health services.

In a direct attempt to break down this dualized structure and reduce the economic and social inequalities it perpetuates, the central tenet of the GOZ's national development plan calls for "growth with equity".

Despite the potential for continued growth, Zimbabwe presently confronts a number of critical problems. First, reconstruction of basic infrastructure damaged or destroyed during the war must be undertaken. To sustain the country's industrial base, replacement equipment and spare parts are needed. This will require direct assistance through foreign exchange credits as well as increasing exports to generate additional foreign exchange earnings. Third, the economic and social inequalities which separate the traditional and modern sectors must be reduced. This will entail extending basic human services to both rural and urban Zimbabweans previously excluded from the system. To accomplish this, new facilities, such as schools and clinics, will have to be built. Even more critical is the need for skilled manpower to make the expansion of services possible. Finally, the GOZ must proceed very carefully in implementing policies based on its "growth with equity" tenet. On the one hand, promises of resettlement made during the war have created expectations that the GOZ must satisfy. It is important to do so because of the genuine need to improve the well-being of rural Zimbabweans as well as for the political necessity of maintaining

stability within the country. This demand must be balanced against an equally important consideration - maintaining the productivity of commercial agriculture. Forced resettlement schemes could easily disrupt this key component of the economy. Similarly, the desire for greater social and economic equity must be balanced against policies which will encourage both domestic and foreign investment essential to private sector development.

1.2 ZIMCORD and USAID/Zimbabwe's Program

In 1981, the GOZ organized the Zimbabwe Conference on Reconstruction and Development (ZIMCORD). The purpose of ZIMCORD was to develop a plan for designating areas of assistance among international donor agencies active in Zimbabwe. The GOZ was to have presented a national development plan; however, it was not until 1982 that the Transitional National Development Plan was completed. The overall objectives of the TNDP include: 1) sustained economic growth; 2) more equitable distribution of economic and social resources; 3) full employment; 4) reconstruction of war damages; and 5) greater domestic control over the nation's economy with increased worker participation in economic decision making.

USAID/Zimbabwe's response to ZIMCORD was to pledge \$225 million in assistance to be obligated over a three year period. The mission's current program will assist the GOZ with reconstruction; support the expansion of government services and contribute to

increasing agricultural and industrial production so that Zimbabwe can maintain the rate of economic growth necessary for achieving its national development objectives. More specifically, the program focuses on agricultural development, human resource development and direct economic assistance to alleviate foreign exchange constraints. Two substantial sector grants - the Zimbabwe Agricultural Assistance Program (ZASA) and the Basic Education and Skills Training Program (BEST) - and a Commodity Import Program are the principal components of the program. A third sector grant for community development is being designed. The program also includes several additional projects - Zimbabwe Manpower Development, Child Spacing and Fertility, Adult Literacy and Book Production, and Books for New Literates.

approach

Sector funding as opposed to a project level/is argued to be appropriate for USAID/Zimbabwe's program for several reasons. Perhaps most important is the strong project implementation capability of the GOZ. Admittedly, the loss of experienced staff due to emigration by whites during and after the war has had a significant impact on government functions. This is reflected in the GOZ's 1981 estimate that 38% of the technical and professional positions in the government were vacant. This problem is particularly acute in the Ministry of Agriculture; 46% of the research and 63% of the agricultural engineering positions were unfilled.

However, USAID/Zimbabwe has argued that the GOZ, including the MOA, has retained adequate numbers of middle and senior level staff enabling the government to design and implement needed development activities. Moreover, there is reason to believe that vacancies will continue to be filled as professional and skilled individuals return to Zimbabwe and as new staff are recruited or trained.

As an example to the GOZ's administrative and financial management capabilities, the Commodity Import Program report for FY 1982 noted that the two tranches (totaling \$44.3 million) of the FY 81 program were disbursed within thirty days and in accordance with agreements concerning use. The report states:

"...the mission believes that the performance to date provides a formidable record of accomplishment and attests to the GOZ's capacity to effectively absorb and channel substantial funds for a variety of activities throughout Zimbabwe." (1982:9)

Though the GOZ's ability to manage CIP funds is no guarantee that it is equally capable of handling sector funded development projects, this does indicate professional competency in key GOZ ministries and a proven record for fiscal accountability other countries lack.

Sector funding is also argued to be appropriate for Zimbabwe because USAID views assistance to the country as a short-term commitment. After the ZIMCORD pledge is met, continued assistance is expected to be at a much lower level of funding. At present, sector funding and the CIP offer an efficient means of quickly meeting USAID's obligation. The short-term nature of USAID's current funding level logically suggests that U.S. direct hire staff be kept to a minimum. Consequently, the mission has operated with just seven U.S. staffers which has recently been increased to eight with the appointment of a deputy director who also doubles as a project officer.

1.3 USAID/Zimbabwe's Data Requirements

USAID/Zimbabwe has made a concerted effort to support data and collection/analysis which will help meet GOZ information needs as well as provide the basis for monitoring and evaluating program effectiveness. To a certain extent, every USAID mission needs quantitative, program specific data. But for USAID/Zimbabwe, the importance of such data is greatly increased because of the mission's reliance on sector funding. Mission staff will not for the most part be directly involved in the implementation of projects funded by ZASA, BEST or the community development grant being designed. Evaluation of the individual projects funded under these grants will also be the responsibility of the GOZ. The mission's infor-

mation about project progress will typically be second-hand, coming from GOZ staff and project reports. Furthermore, the purpose of the program is to overcome constraints currently affecting development in specific sectors. Program success will, therefore, be measurable in terms of the extent to which these constraints have been reduced as a result of activities supported by USAID/Zimbabwe's sector grants.

The type of data USAID/Zimbabwe will need for sector program evaluations will differ from what is ordinarily used for evaluating project outputs and effects. As the Program Approval Assistance Documents for the agriculture and education sector programs note, criteria for evaluating individual project accomplishments are not appropriate for evaluating program effectiveness. A major objective of sector funding is to support a set of projects which as a group will produce broad, beneficial changes throughout the entire sector. It will be this process on which summative evaluations will focus.

An important consideration for these sector program evaluations will be the degree to which alleviating constraints has reduced economic and social inequalities. USAID/Zimbabwe will need data which are geographically comprehensive or representative so that regional or spatial differences in social and economic conditions can be assessed. Similarly, the ethnic and cultural diversity of

Zimbabwe will be a key variable in evaluating whether inequalities have in fact been diminished as a result of the mission's program. therefore, USAID/Zimbabwe will, / need data which can be disaggregated by ethnic or cultural group to determine whether "growth with equity" has occurred. Similarly, the social stratification of Zimbabwe is pronounced; therefore, data which shows the relative benefits of development by socio-economic category will be needed. Moreover, the data will have to be longitudinal so that change over time can be measured. Finally, given the level funding for just the two current sector programs (\$90 million), the mission should have access to statistically sound data. Methodological and statistical standards should not be overly compromised as they sometimes are for data collection components of individual projects. A reasonable degree of statistical rigor is appropriate in this case because the types of sector-wide impacts which will show program effectiveness cannot be easily "eye-balled" by some sort of rapid reconnaissance technique suitable for certain project evaluations. In short, USAID/Zimbabwe will need data which are representative of the beneficiary populations (e.g., rural Zimbabweans) and which validly measure conditions within each sector.

USAID/Zimbabwe will have to rely on the GOZ for the bulk of this data. An important source of data will be operational records maintained by the Ministry of Agriculture and the Ministry of

Education and Culture. Systematic reporting by school officials or extension agents, for example, to district or provincial ministry offices could provide much useful information about operating conditions, service delivery, costs, etc. It will be necessary to develop systems of data capture to produce usable data sets from such records for further statistical analysis. The methods of operational research will be especially useful and could be used to generate types of information the mission will need for sector program evaluations. A second important source of data will be from projects the GOZ undertakes which involve data collection and analysis. The mission will have to remain alert to the possibility of meeting some of its information needs through such projects when proposed activities are reviewed. Mission staff will have to determine whether a data collection component is appropriate within a given project, whether the data will reliably measure sector wide conditions, whether GOZ staff are capable of the task, whether additional technical assistance will be needed, etc. A third alternative would be independent surveys to collect key indicators useful to GOZ ministries and the mission which cannot be obtained from other sources.

A plan of analysis should serve as the fundamental guide for the mission's data related activities in each sector. The plan should describe precisely how the mission intends to demonstrate

program effectiveness and even go so far as to suggest the actual tables that will be presented (obviously empty at this point). It would also be useful to design each plan of analysis so that unanticipated effects - both positive and negative - can be identified. It will be necessary to determine who will be responsible for conducting the analyses; how often data should be collected and analyzed; whether the current analytic capacities of GOZ ministries are sufficient for the task; if not, will this capacity be developed at some later date; how much analytic support mission staff can provide; how often and much technical assistance will be needed for the analyses; and whether existing computer facilities are adequate to handle the additional demand created by these analyses.

2.0 Available Data and the GOZ's Data Collection and Analysis Capacity

2.1 Available Data

Zimbabwe's information bases are for the most part as dualized as is its economy. The strongest data bases (e.g., in terms of comprehensive coverage, detail and length of time series) are those which focus on the modern sector. On the other hand, there is a veritable dearth of information about the traditional sector. USAID/Zimbabwe observed precisely this situation in its FY 1984 CDSS:

"One striking indicator of the level of development of the two sectors is the information base available in

the two sectors. An analyst wishing to study the modern sector in Zimbabwe will find data of great depth, breadth and complexity. With the end of sanctions and the coming of independence, data on finance, trade, national income, industrial and agricultural production, employment and wages, prices and government accounts were more available and more reliable than in probably any other country in black Africa. On the other hand, data on income, population, production, employment, credit, etc. in the traditional economy were less available than in probably any other country in Africa. There are no farm budget studies. The last census was in 1969, and estimates of population growth vary from 3.6% to 4.2%." (1982:3)

According to an AID/Washington economist who helped prepare the FY84 CDSS, much of the economic data obtained from the GOZ on the modern sector is of high professional quality. For example, an annual Census of Production collects data on the output of commercial farms, mining operations and manufacturing. The Central Statistics Office publishes a Monthly Digest of Statistics which reports on output by sector and by commodity. Another excellent publication is the Quarterly Economic and Statistical Review produced by the Reserve Bank of Zimbabwe. The Review contains data

on Zimbabwe's current financial condition. Labor surveys in the modern sector have also provided time series data on wage employment.

In contrast, virtually the entire gamut of economic and social conditions in the traditional economy are only understood in the most general and imprecise terms. No reliable estimates of income of those working in the traditional sector exist. Consequently, neither the degree nor the distribution of poverty in Zimbabwe is known. As the FY84 CDSS notes: "(T)he systematic recording of key social and economic processes generating and maintaining poverty and dualism in Zimbabwean society still require more adequate investigation." (1982:23) Similarly, there are no reliable estimates of other social conditions, such as illiteracy and general health status.

Agricultural data and research are also skewed toward the modern sector. Research facilities have in the past concentrated on the problems of commercial agriculture, much of which is located in higher rainfall areas. White commercial farmers supported their own research institutes. Hybrid seed strains have been developed specifically for the conditions and management practices of commercial operations. However, these seed stocks are not necessarily suitable for use by smallholders. Other agricultural technologies which have been developed for commercial farming are likewise not appropriate for small farms. Research/on the basic production con-
is needed

straints affecting smallholder operations. Little is known about agronomic conditions, farm management practices, crop mix, access to credit, agricultural inputs and labor supply.

2.2 The GOZ's Capacity for Data Collection and Analysis

Unlike many other developing countries, the GOZ places considerable importance on improving or establishing information systems to support high priority development activities and government services. Plans for such improvements in the agriculture and education sectors assisted by USAID/Zimbabwe will be discussed in more detail in the following sections. The point to be made here is that the GOZ recognizes that the lack of adequate data particularly about conditions in the traditional sector adversely affects its operations. Furthermore, they are genuinely committed to improving the administrative efficiency and planning effectiveness of key ministries by making better use of more timely, accurate and comprehensive data.

The GOZ has begun to fill important information gaps. Zimbabwe has recently completed its first national census. The first enumeration of the African population in what was then Rhodesia was attempted in 1962 and again in 1969. Three schedules were used for the 1969 census - a detailed form for the whites, a supplementary form for employers, and a condensed form for blacks. The census included everyone in the country regardless of whether they were citizens. Consequently, Zambians and Malawians were in-

cluded in the census as part of the black population while bona fide black residents temporarily outside of the country at the time of the census were omitted. The 1982 National Census will be a vast improvement over earlier censuses. The Census will include the following data: the number of persons in the household; their age, sex, ethnicity, language, birth place, place of residence one year earlier, school attendance and educational attainment, parental mortality, marital status, employment status, occupation, number of children ever born and date of last live birth; the language spoken in the household; religion of the household; whether there is a radio in the house; means of transportation to work; the type of construction materials and the number of rooms in the house; whether the house is owned, rented or rent-free; source of drinking water; presence of sanitary disposal facilities; and the energy source used for cooking. UNFPA and ODA assisted the Central Statistics Office with the design and implementation of the Census. USAID/Zimbabwe provided assistance through the Bureau of the Census. Preliminary results are available and a final release of the data is expected shortly.

An important use of the census data will be to improve estimates of the rate of population growth. Current estimates range from 3.6% to 4.2%. Needless to say, it is necessary to narrow this range so that the severity of the problem can be determined. Though

the Census will be very useful, the accuracy of the data might decrease more rapidly than normal because of the present instability of Zimbabwe's population. Many black and white Zimbabweans were displaced during the war. With independence and continued political stability, it is reported that population patterns are still in flux due to internal relocation and the return of temporarily displaced people. Immigration of non-Zimbabweans from neighboring countries could also affect the country's population composition and distribution. The effects of these changes cannot now be determined. But an intercensal demographic survey could be conducted to provide a basis for improving the accuracy of vital statistics and population estimates at a later date when they are needed. In any case, the National Census will constitute an essential baseline for tracking population changes in Zimbabwe.

The GOZ is currently considering how to organize its data collection and analysis activities to best meet the needs of key ministries. The basic question is whether statistical activities should be centralized under the Central Statistics Office (CSO). The Ministry of Finance, in which the Central Statistics Office is located, favors strengthening the role of the CSO. Other ministries, such as Agriculture, claim that their needs will be neglected; therefore, they should have an in-house capability for statistical analysis. Bureau of Census and USAID/Zimbabwe staff

concluded that the CSO is competing with the other GOZ ministries and the University of Zimbabwe over the resolution of this question. Ironically, the CSO is considered the weakest in terms of present data collection and analysis capabilities. A mission staffer speculated that a compromise would be struck whereby the CSO would be responsible for the more routine activities while detailed, specialized studies would continue to be conducted by individual ministries. How the issue is resolved is less important at this point than the fact that serious thought is being given to planning the division of responsibility and the organization of data related activities so that Zimbabwe's current and future information needs will be best met.

As mentioned earlier, the capacity of GOZ ministries have been weakened by the departure of white Zimbabweans from government service. Technical and professional positions have been hardest hit. Beginning in 1976, roughly 10,000 whites emigrated from Zimbabwe annually. In 1979 and 1980, 40% of this group (some 4,000) were professionals, technicians, or administrative and supervisory skilled workers. In 1981, this outflow resulted in serious staff shortages; the GOZ estimated that 38% of the professional and technical positions in government were vacant. In part, these shortages reflect past discriminatory practices of excluding blacks from such jobs. The problem was exacerbated by the instability of

the government's workforce. Blacks who entered government service to tended/change their posts or leave for jobs in the private sector. According to one / staffer, the turnover rate of government personnel mission was significant, but in the past six to nine months, the situation appears to have stabilized.

Though it is very likely that this problem had an adverse effect on GOZ operations, the government remains very much interested in improving the collection and analysis of data for administrative, planning and research purposes. Despite the loss of professional and technical staff, the GOZ has attracted and retained competent staff at middle and upper levels who are essential for improving data related activities. For example, the Ministry of Finance and Economic Planning has a core staff who value the use of quantitative data for project appraisals. Projects are carefully reviewed for their impact on the national budget, recurrent costs and overlap with activities funded by other donors. Some MOF staff are trained in econometrics and understand the use of analytic techniques for improving project design. One USAID/Zimbabwe staffer who has a strong background in quantitative analysis, stated that in general, the ministries collect reasonably good quality data. For example, the Ministry of Manpower Planning and Development (MMPD) has recently completed a national manpower survey which the MMPD and other GOZ ministries will use planning future programs. Further improvements are anticipated; for example,

the PID for the Basic Education Sector Grant stated: "(B)oth (the MMPD and the MOEC) are refining their data collection processes to ensure appropriate data are obtained and utilized in policy formulation." (1983:34) In short, with the exception of South Africa, Zimbabwe clearly has a greater institutional capacity for data collection and analysis than do other countries in the region. With adequate technical assistance, it is very likely that Zimbabwe will achieve significant improvements in this area.

Commensurate with the GOZ's capacity and interest in improving data use, it is also interested in upgrading its data processing equipment. Currently a variety of computer hardware is used. For example, the Treasury Computer Bureau has NCR and Data General equipment while the Scientific Computing Center has installed a Perkin - Elmer system. IBM equipment is somewhat problematic for Zimbabwe because the only service centers are in South Africa. Nonetheless, increasing use is being made of IBM and Apple micro-computers. As one consultant assisting the MOEC recently noted:

"Overall, for a country its size, the services are quite extensive and appear to be well integrated despite difficulties of retaining trained staff and obtaining foreign currency for foreign made computers and support equipment." Kurt D. Moses, 1982:12

However, BuCen and mission staff noted that some hardware problems are currently affecting data entry.

Local competition among equipment manufacturers is increasing. EEC manufacturers and particularly the British are eager to maintain a share of the market. USAID/Zimbabwe has provided assistance to the GOZ for acquiring U.S. computer equipment. Of the \$50 million in foreign exchange credits provided by the FY83 CIP, \$1.3 million were targetted for data processing equipment for the public sector and \$5.9 million for the private sector. According to one consultant who has worked extensively in Zimbabwe and the Southern African region, the GOZ does want more more U.S. manufactured equipment. This individual found it curious, therefore, that a more concerted private sector initiative is not being encouraged by USAID/Zimbabwe. Though such activities have not been one of the Agency's strong suits in the past, with the increased importance being placed on expanding the role of the private sector in development, it would seem that more could be done in this direction particularly in Zimbabwe.

It should also be noted that Zimbabwe is rapidly becoming the center of regional information systems precisely because of its capacity for supporting such operations. The availability of computer facilities - vendors, service, software houses, etc. -, individuals with computer science and data related skills, and good telecommunications underpin this development. As a result, Zimbabwe

has been chosen as the center for the Southern Africa Documentation and Information System (SADIS) which USAID/Zimbabwe supports through the African Bibliographic Center. The system will contain a variety of data bases (primarily non-quantitative in content) which should greatly improve access to pertinent development-related information for participating countries. A Food Security Information System which would report on agricultural production is being considered. Data from participating countries in the region would be pooled to estimate, for example, food supplies. This would serve as an early warning system to protect against impending food shortages in the region. The system could be designed so that it is complementary to SADIS. These kinds of information systems could prove to be a very cost effective means of meeting various information needs throughout the Southern Africa region.

2.3 USAID/Zimbabwe's Access to Available Data

AID/Washington and mission staff report that they have very good access to the GOZ's available data. This willingness to provide basic data is totally consistent with the GOZ's positive orientation toward data collection and analysis. Easy access to data is very apparent in the program and project documents prepared by USAID/Zimbabwe. The FY84 CDSS, for example, uses a variety of data obtained from the GOZ. The macro-economic sections make particularly effective use of available data to substantiate in a

remarkably lucid fashion, analyses and interpretations of Zimbabwe's present economic condition. The mission has used only secondary data (i.e., data which have already been collected) for all PID's, PP's and PAAD's. USAID/Zimbabwe has funded only one special study for the development of the Community Development Sector Program. The mission needed to identify indigenous PVO's ^{and} determine who they serve, in what locations and what types of projects they undertake. This is not the type of data most governments collect. In short, USAID/Zimbabwe is in the very favorable position of working with ^{data} a very cooperative host country. Moreover, the /the GOZ collects are timely and reasonably accurate in comparison to what is available in many other developing countries.

2.4 Summary

The major problem Zimbabwe confronts in regard to improving its information bases is broadening data collection to include the traditional sector while continuing to collect timely and accurate data on the modern sector. It will be particularly useful for the GOZ to explore the interrelationships between these two sectors to better understand how government policies and development efforts can facilitate the mutual growth of both spheres of economic activity. The GOZ has considerable capacity for data related activities and it appears to be committed to improving its capabilities further. In short, the GOZ understands where

current information gaps are and it appreciates the need to fill those gaps to improve administrative and planning operations. With adequate donor assistance for the more technical aspects of data collection and analysis and for upgrading and expanding its computer systems, it is very likely that Zimbabwe will achieve significant, sustained improvements in these areas.

3. The Data Collection and Analysis Components of USAID/Zimbabwe's Program

3.1 Agricultural Development - the Zimbabwe Agricultural Sector Assistance Program (ZASA)

A major objective of the GOZ is to correct the past disproportionate allocation of agricultural resources and services. Prior to 1979, government services, research and agricultural inputs were concentrated on commercial farming (some 6,000 or more farms) while virtually excluding the 700,000 to 800,000 small farmers of the country. To correct this imbalance, the GOZ has given high priority to reorienting and expanding programs to smallholders. The Zimbabwe Agricultural Sector Assistance Program (ZASA) will provide necessary financial support (\$45 million) to enable the GOZ and, in particular, the Ministry of Agriculture to implement adequately funded projects.

ZASA funds will be used for projects which address one or more of seven key constraints to smallholder production and productiv-

ity. An agricultural sector assessment completed in 1982 identified these constraints as follows:

- 1) Research - Past research has focused on high rainfall areas where commercial agriculture tends to be located. Little or no research has been done on smallholder production systems. Research is needed on agronomic conditions, crop mix, crop varieties, agricultural inputs, labor demand and supply, and mechanization.
- 2) Extension - The Agriculture, Technical and Extension Service (AGRITEX) was established by the Ministry of Agriculture in 1926. AGRITEX has had a staff of some 1,600 working in all eight provinces; however, services have concentrated on commercial farms and generally have not reached small farmers. Therefore, AGRITEX needs to be redirected - in part based on the research findings on smallholder production systems - and expanded.
- 3) Training Institutions - Zimbabwe needs to expand its agricultural and technical colleges and institutes to obtain the skilled manpower necessary for improving MOA services.
- 4) Input Supply and Marketing - To improve smallholder access to agricultural supplies, the GOZ plans to work through farmers' cooperatives as a means of overcoming agricultural input and marketing constraints. The GOZ will finance the construction of warehouses and smaller distribution centers which will also serve as collection centers for marketing farm products. The number of cooperative

extension workers will also be increased.

5) Credit - To make credit available to a significantly greater number of smallholders - anywhere from 40,000 to 200,000 farmers - the capacity of the Agricultural Finance Corporation must be substantially expanded. Physical facilities must be constructed and new administrative procedures using automated data processing equipment developed.

6) Irrigation - Smallholder production could be increased by expanding irrigation systems beyond the 143,000 ha. currently under irrigation. Construction equipment, feasibility studies, improved extension services, assessments of ground water reserves and clarification of smallholder land tenure status will be needed.

7) Planning - To improve the allocation of scarce financial and human resources, the GOZ needs to improve the coordination among the various ministries and departments involved with agriculture. Overall goals, priorities, targets, etc. need to be established and individual responsibilities need to be assigned to the various implementing units. Improved collection and analysis of pertinent agricultural and economic data will be essential for better planning.

8) Resettlement - USAID/Zimbabwe will only assist the GOZ with its resettlement plans indirectly through the use of ZASA funds for projects which address one or more of the above constraints. One aspect of resettlement which might receive direct assistance is

improving the GOZ's capacity to plan and evaluate resettlement activities.

A number of GOZ ministries will be involved with activities supported by ZASA. It is important, therefore, that these ministries have adequate administrative and planning capacities to guarantee that funds are managed properly and used effectively. An assessment of GOZ ministries was made; it included the Ministry of Agriculture and four of its principal departments - the Department of Research and Special Services, Agricultural Education, Veterinary Services, and AGRITEX; the University of Zimbabwe's Faculty of Agriculture; the Ministry of Lands, Reconstruction and Rural Development; the Department of Cooperative Development; the Agriculture and Rural Development Authority; the Ministry of Economic Planning and Development and several other ministries which will work with these units (e.g., Transportation, Construction). The design team assisted by REDSO/EA staff concluded that the loss of senior professional staff had weakened ministry capabilities, but that the MOA is still operating adequately and that in general, "...sufficient institutional strength still exists to give us confidence that AID resources will be effectively utilized and managed." (ZASA PAAD 1982:50) In regard to project implementation capacity, the GOZ has adequate numbers of competent staff to handle increased project activity resulting from ZASA. However,

improvements are needed in the MOA's long-term and macro-level planning capabilities. This is one of the key constraint areas which ZASA will help overcome. Training and research activities involving the University of Zimbabwe, agricultural colleges and institutes, the Department of Research and Special Services (DRSS) and AGRITEX will contribute to this end. Though not explicitly stated in the PAAD, it is probably the case that the MOA's capacity for data collection and analysis is similar to its current planning capability - adequate for the near-term but in need of improvement for activities which go beyond that limited scope.

Improved data collection and analysis will be necessary for anticipated policy analyses. USAID/Zimbabwe argued that sector funding will allow mission staff to continue discussions with the GOZ about key policy issues. Major policy reforms in the agriculture sector are not needed. But current policies should be reviewed to assure that the needs of smallholders are balanced against the necessity of sustaining the productivity of commercial agriculture. The agriculture sector assessment indicated new policies and strategies might be necessary to accomplish this:

"This requires a growing sophistication in the GOZ in the analysis of the costs and benefits from decisions made, i.e., a greater analytic ability to examine, evaluate and project the impacts of

changed or alternative policies. The historical information from which to analyze that data for decision-making purposes is necessary to ensure a continuing positive policy environment." (1982:6)

In Annex B of the ZASA PAAD - National Agriculture Policy Environment - a similar conclusion is reached:

"What is necessary, however, is a capacity for government to evaluate these likely consequences of alternative policy courses. Certainly some of this capacity to do this now exists but a greater capacity will probably be necessary to ensure that decisions are made with a full understanding of probable outcomes rather than only some ideas and estimates." (1982:B-14)

A likely topic for this type of analysis is Zimbabwe's agricultural subsidies. In 1981-82, GOZ subsidies were expected to reach Z\$170 million of which Z\$100 million would be for maize alone. It would be important to determine precisely who benefits from this policy and how much. Clearly subsidized food prices benefit urban consumers, but how many of them actually need such assistance is less certain. Nor are the effects of reducing subsidies sufficiently understood, particularly in regard to the differential impact such reductions would have the rural and

urban poor. Quantitative data on the effects of food subsidies are needed so that policy questions of this sort can be answered. Given the rather open-endedness of sector funding, one can only assume that data for policy analysis will be collected as part of the activities designed to improve agricultural planning under ZASA and that USAID/Zimbabwe will remain attentive to and encourage such work.

The basic purpose of ZASA - i.e., support for GOZ budgets to assure adequate funding of activities directed toward overcoming one or more of the above constraints - obviously determines the data requirement for the program. Each of the constraint areas is readily amenable to longitudinal measurement of progress. The primary monitoring responsibilities of the mission will, for the most part, be limited to the GOZ's implementation progress and financial expenditures in approved budget areas. Data on project output, according to the mission, are useful but not essential to fulfilling this responsibility. However, precisely what data from which sources will be used to assess and evaluate the overall effects and impacts of the ZASA program is unclear. As the mission rightly points out, program evaluations should proceed from "... the fact that specific project-type outputs are not encompassed within the purpose of the sector grant." (ZASA PAAD 1982:55) Granted, but the mission still has the responsibility of demon-

strating to what degree the seven key constraints have been alleviated and the condition of smallholders improved. Changes of this type are certainly not project level outputs which project evaluations would normally include. Rather, they are more appropriately viewed as program level goals which are the criteria for determining program effectiveness.

From this perspective, data on smallholder production, productivity, income and their general economic and social well-being would be essential for evaluating ZASA. Logically the data should indicate that improvements in the status of smallholders resulted from lessening or overcoming one or more of the key constraints. For example, small farmer production increases might at least partially be attributed to following advice about better farm management practices provided by extension agents. A rigorous demonstration of such relationships would require a rather carefully designed data collection effort which might be too sophisticated and elaborate at this time. For example, a before and after design with control and experimental groups preferably where farmers are randomly assigned to receive the treatment (e.g., extension services) would be desirable from a statistical point of view. For the most part, these designs are impractical and poorly suited for real-world field conditions (e.g., random assignment is usually impossible in the context of government sponsored development

projects). A more realistic approach would be to collect data in one or more selected areas of the country using small farms as the unit of analysis. Data pertaining to specific constraints ZASA addresses (e.g., the number of contacts small farmers have with extension agents, the number of hectares under irrigation, etc.) and a limited number of key indicators on smallholder conditions (e.g., production levels, quality of life measures) could be collected to show program effects. For example, assuming a positive relationship between the number of extension agents and farm productivity, it would be fair to conclude that the program appears to have contributed to alleviating that particular constraint and thereby assisted small farmers. Of course, this type of analysis would have to be done for each constraint area and it might be useful to use multi-variate analysis to determine individual and interactive effects. This would require baseline data for measuring changes which might be difficult to generate at this time. There are also a number of additional independent variables which could enhance the utility of the analysis. For example, if data were collected in different geographic areas of the country, locational differences in program impact could be determined. This could be a useful planning tool for the MOA. Current GOZ capacities for data collection and analysis would, of course, determine what is possible at the outset. But as the activities funded by ZASA

take effect (i.e., improvement of research and planning capabilities), more sophisticated data collection and analysis efforts might become feasible and appropriate.

Sample surveys could supply the data needed for program evaluations. However, it might be possible to obtain data less expensively and at the same time build the MOA's analytic capacity. Considerable emphasis will be placed on increasing the number of regular and cooperative extension agents. Records of their contacts with small farmers could be a useful source of data. Alternatively, they could be used as interviewers for focused surveys on production, farm management practices, etc. As described in the PAAD, the GOZ plans to expand the role of cooperatives to facilitate increased use of agricultural inputs. This might serve as another source of relatively inexpensive data. For example, cooperatives could be encouraged to keep records of input purchases, labor use, crop yields, etc. for their members. As the activities ZASA supports get underway, additional sources of data will probably become available. But if sound empirical evidence of program effectiveness is to be obtained for MOA use and for USAID evaluations, then a plan of analysis is needed now (if it has not already been developed) to assure that the necessary data are collected and analyzed.

3.2 Human Resource Development:

Basic Education and Skills Training Sector Program (BEST)

The GOZ plans to substantially expand the education system. Formal education and vocational training are viewed as essential to increasing the social and economic opportunities of the black population and thereby decreasing present inequalities. To assist the GOZ, USAID/Zimbabwe has obligated \$45 million for the Basic Education and Skills Training Sector Program (BEST). The purpose of the program is to support the GOZ's efforts to 1) qualitatively and quantitatively develop the primary and secondary school system and 2) expand and diversify vocational and technical training. The key constraints BEST will address include 1) the limited financial resources of the GOZ to undertake these improvements; 2) insufficient numbers of teachers; 3) inappropriate instructional curricula; 4) inefficient and inequitable spatial distribution of educational and training facilities; and 5) insufficient planning capacity in the Ministry of Education and Culture (MOEC) and the Ministry of Manpower Planning and Development (MMPD). In all BEST supported activities, particular attention will be given to creating systems and operating procedures which are cost efficient and affordable by the GOZ. Increasing the availability of educational and training programs on a more equitable basis to all Zimbabweans is of equally high priority.

The PAAD for BEST clearly states the objectives which will indicate whether and to what degree the program has contributed to overcoming the key constraints. They are as follows:

- 1) A more efficient use of educational resources that will allow increases in the numbers of children enrolled in school and the quality of their learning and will increase the availability of relevant vocational and technical training.
- 2) Substantial increases in the numbers of fully qualified elementary, secondary and vocational-technical teachers on a continuing and cost-effective basis.
- 3) Demonstrable improvement in the quality, relevance and instructional effectiveness of the curricula, both in elementary and secondary schools and in the technical training programs.
- 4) A more equitable distribution of teaching and training resources to rural schools and to the several geographically dispersed regions of the country and efficient governmental mechanisms in place to assure the maintenance of this equity; and
- 5) Strengthened administrative planning and management capacities at various levels of the education and training systems, leading to more cost-effective use of resources and the moderation of recurrent financial burdens. (1983:41-42)

Each of these anticipated improvements can be operationalized so that the degree of success attained during the course of the BEST

program can be determined. In fact, these five sector level improvements constitute the logical structure around which USAID/Zimbabwe has designed the evaluation plan for the program.

BEST will also contribute to increasing the capacities of the MOEC and the MMPD for data related activities. USAID/Zimbabwe views this as an important objective; in the PID, the mission stated:

"Though difficult to quantify, it may be argued that one of the largest economic impacts of the USAID program may well be through the strengthening of key administrative, logistic and data handling capacities and the improvement of MOEC and MMPD capacities to assess the financial and personnel implications of alternative education and training policies." (1983:59)

The MOEC's administrative and planning capabilities will be improved through better data collection or data capture routines and through staff training in the use of analytic techniques for planning purposes. At present, the amount of available data for the post-independence period is limited to operational information, such as enrollments, the number of teachers, etc. However, the data are not highly reliable predictors of future educational needs due to the demographic instability of Zimbabwe. This makes

it very difficult if not impossible to estimate the size and geographic distribution of school age cohorts. In turn, this greatly complicates planning the expansion of educational and training programs. But as the population stabilizes, the MOEC will be able to obtain the types of data it needs for planning the construction of schools, the assignment of teachers, etc.

Like other GOZ ministries, the MOEC and the MMPD have a very positive orientation toward improving data collection and analysis activities. As USAID/Zimbabwe notes in the PAAD:

"The MOEC has already made progress in increasing its budget analysis system which it wishes to extend to the provincial level. Also, the anticipated computerization of the national examination unit will permit a refinement and analysis of student achievement data heretofore impossible...The MOEC recognizes that sound research and evaluation data, sensible planning and rational decision-making are prerequisites to any meaningful improvement in the educational system." (1983:47)

The mission estimates that the MOEC will allocate approximately \$4.3 million in program funds to improve its research, evaluation and planning capacities.

planning capacity using the Budget Allocation Model is operational.

Moses proposes that the MOEC:

"...initiate the design process for a regionalized data capture and information system built around interconnected microcomputers. Place durable, simple microcomputers with several terminals connected in each Regional Office, in Head Office in several locations, and with interconnect equipment in TCB... Each Region would input its own data on salaries, staffing, financing, and statistics." (1982:25)

Such a system would link regional and central offices, speeding communication and access to data bases maintained throughout the network. There is no reason to believe that such a system would not be feasible for Zimbabwe given its existing capabilities in this area. One point that should be made was emphasized by Mr. Moses during a discussion about AED's work in Zimbabwe. A major factor which accounts for the successful use of the Budget Allocation Model is the functioning linkages established between offices within the MOEC and the credibility attributed to the information provided by the model from the Planning Office. It is too easy to overlook these very essential organizational linkages and instead attribute success disproportionately to the capacity of microcomputers to facilitate information use.

Kurt D. Moses working for AED recently published a report dealing with the MOEC's current organizational, statistical and computer requirements entitled "Computer Service Needs for the Ministry of Education and Culture, Zimbabwe" (1982). The rapid increase in the number of students, teachers and schools as well as the growing complexity of the system requires that the MOEC expand and streamline its collection, processing, analysis and dissemination of administrative and planning data. According to Mr. Moses, the MOEC needs to improve its collection of data on personnel assignments and replacements, salaries, operating expenses, school enrollments and test results. The Ministry must also be able to better allocate funds and staff among schools and choose the most advantageous sites for new school construction. Better data capture procedures for administrative purposes will at the same time improve available data for planning needs. Moses recommends two general solutions to resolving the MOEC's need for for better computer system support. For administrative tasks, the Ministry should work more closely with the Treasury Computer Bureau to improve data processing operations. At the same time, it should decentralize data capture and reporting by letting provincial offices oversee the collection of operational data. Decentralization of planning should also be pursued by the MOEC through the increased use of microcomputers. As mentioned earlier, a central

Work has already begun on assisting the MOEC improve its ability to allocate financial resources more efficiently and effectively. The GOZ has a difficult problem in overcoming spatial inequalities within the system (i.e., to provide equal educational opportunities throughout the country). Furthermore, there are significant differences among the several categories of schools in terms of staffing, funding and student performance. It will be very important for the MOEC to target increased expenditures and assign additional teachers to new and existing schools in the most effective manner possible to achieve a more equitable system. To this end, the GOZ has contracted with the Academy for Educational Development to assist the MOEC improve its data processing and develop the analytic tools necessary for better planning. AED developed a microcomputer based Budget Planning Model which will allow the MOEC estimate the impact of alternative formulae for allocating funds and staff among schools. According to one AID/Washington officer knowledgeable about the project, the model will save the MOEC approximately \$5million annually by redistributing teachers and other resources in a more equitable and cost-effective fashion. The first stage was to establish a central planning capacity based on the Budget Allocation Model. The next step will be to decentralize decision making by replicating the model for use at the provincial level.

to
BEST will assist the MMPD/establish the National Vocational Training System (NVTTS). The MMPD will expand and diversify vocational and technical training programs through the NTVS. BEST funds will be used principally for the construction of new facilities and the training of additional staff to supply adequate numbers of qualified teachers and supervisors. The planning capacity of the MMPD will also be upgraded. \$1 million have been budgetted for staff training outside of the country to develop expertise in specialized areas including applied research and evaluation. The MMPD has recently completed a National Manpower Survey which in conjunction with the National Census will provide important information on labor market conditions and the demand for skilled manpower. Results of the Manpower Survey have been used to formulate training policies, recruit expatriate staff and select appropriate overseas training programs.

The evaluation plan designed for the BEST program is undoubtedly the clearest articulation of criteria and methods for empirically determining program effectiveness yet encountered. (This is in comparison to five other USAID missions covering seventy or more projects and programs.) USAID/Zimbabwe states in the PAAD that:

"The final criterion for success of this sector program will be the degree to which the key education and training constraints have been removed or diminished.

The evaluations during the term of the grant will focus on observable progress in the described constraint areas. For all of the constraint areas there are quantifiable variables which alone or collectively permit inferences regarding program success." (1983:80)

Data will be obtained from the MDEC and the MMPPD on total enrollments by grade level; enrollments as a percentage of age cohort; per student cost by grade level; student achievement on national and international normative exams; cumulative number and percentage of teachers who are certified "qualified" by academic level; annual attrition rate of teachers; numbers of new entry-level teachers who are being produced annually; financial disbursements showing geographic resource distribution; the ratio of school and training facilities to population; the proportional distribution of textbooks, qualified teachers and other instructional materials or training/based on population density; the number of subject areas and grade levels for which new instructional materials have been developed; the number of new vocational training modules; the number new training materials produced; and the number of trained planners at various levels within both ministries.

Formative evaluations at least for the first two years of the program will focus on the general implementation progress of the GOZ. It might be possible later to incorporate quantifiable indicators of success toward accomplishing interim objectives. The

aforementioned quantitative measures will be most important for the summative evaluation. The mission further suggests an impact evaluation ten years after the conclusion of the program. Again, quantitative measures will be essential for tracking the long-term effects of the BEST program.

The only reservation that could be raised about the evaluation plan is that it is unclear about who will do the analysis and how often . Given the typically short duration of evaluations, it is unlikely that the evaluation team could do much of the statistical analysis. Rather, basic results will have to be available when they arrive; their job will be to interpret the findings and integrate it with other pertinent information about the program. The MOEC and the MMPD might be able to perform some or even most of this work. This will be contingent on their capacity for statistical analysis and whether the ministries view the utility of such work as integral to their operations. All evidence suggests such a positive view would prevail; the real issue is one of institutional capacity. It might, therefore, be necessary for the mission to encourage periodic technical assistance to both train ministry staff and carry out needed analyses. This could be of benefit to both the GOZ and the program evaluations.

3.3 Other Human Resource Development Projects

USAID/Zimbabwe currently supports three projects which will involve data collection and analysis activities. They are Child Spacing and Fertility, Adult Literacy Teacher Training and Text Production, and Manpower Development.

3.3.1 The Child Spacing and Fertility Project

The Child Spacing and Fertility Association of Zimbabwe (CSFA) is regarded as one of the best family planning organizations in any developing country. The GOZ has given high priority to strengthening the CSFA and expanding the number of birth control users from approximately 200,000 to 348,000. With an annual population growth rate estimated between 3.6% and 4.2%, the importance of increasing family planning in Zimbabwe is obvious. At these rates, the population of the country will double within twenty years. USAID/Zimbabwe has obligated \$8.542 million to assist the GOZ and the CSFA in this area. The goals of the project are 1) to expand services to non-urban areas which will require increasing administrative, managerial and logistical capabilities; 2) increase the total coverage of the CSFA program; 3) establish a research and evaluation capability in the CSFA; 4) increase the CSFA's information dissemination and education capabilities; and 5) increase the Association's staff training capability.

The CSFA program has for all intents and purposes been operating in an information vacuum largely due to the lack of reliable demographic data and no thorough analyses of its own records.

Annex B - Demographic Research Needs - of the project paper discusses in detail the types of data and analysis which would assist to the CSFA to monitor its current program and plan further improvements.

According to the authors of Annex B, the CSFA needs data on

1) the level of activity of its individual service units; 2) performance/statistics at local, regional and national levels; 3) levels of

knowledge, use and availability of family planning methods in the general population; 4) fertility rates and trends; 5) fertility preferences; 6) attitudes toward family planning; and 7) media

exposure. (1982:B-1) The data needed to improve CSFA operations and meet USAID evaluation requirements could be obtained from

CSFA client records and fertility surveys. The CSFA keeps a record for each client which includes data on age, occupation, where the person learned of the clinic, date of marriage, desired number of children, nature of the visit, family history, husband's occupation, whether the husband approved of the visit, reproductive and menstrual histories and a checklist of key health indicators.

Analysis of data obtained from a sample of these records would provide information about such things as client recruitment and continuation and dropout rates by method of birth control. Such

work would be greatly facilitated by computerizing the record-keeping system .

Fertility surveys were planned for 1982, 1983 and 1985 using both local expertise - i.e., CSO, University of Zimbabwe and CSFA staff and market survey firms - and technical assistance from Westinghouse Health Systems and the University of North Carolina. These surveys will collect data on fertility, contraceptive practices and population growth rates. The cost-effectiveness of CSFA managerial and operational systems also need further study. It is necessary to determine whether more efficient staffing arrangements and personnel assignments are possible. The Research and Evaluation Unit to be established in the CSFA would undertake these and other specific tasks as its staff develops the necessary skills.

Apparently the CSFA program has suffered somewhat from turnover in personnel in recent years, but according to one USAID/Zimbabwe office the situation has stabilized and the Association is regaining its prior capabilities. However, the CSFA has had no previous experience with data collection and analysis which might make it difficult to accomplish all of the research objectives outlined above. Without being unduly pessimistic, it might be useful to set priorities for these activities so that the most important objectives are accomplished.

At the top of the list should be developing the capacity of the Research and Evaluation Unit to use the data available from the client records for monitoring and evaluating program operations, outputs and effectiveness. This seems most important because 1) the data are readily available and additional collection costs, therefore, will be minimal; 2) the records are an on-going activity and will provide a longitudinal description of program activities; and 3) this creates an important institutional capacity within the CSFA in the near to medium-term. On the negative side, the reliability of the records can be questioned. However, experience in other countries indicates that as use of such records increases, the quality of the data collected improves. The most obvious reasons for this are that even simple descriptive uses of the records identifies glaring inconsistencies; clinics which fail to report or are not keeping adequate records can be identified; and that problems with the record-keeping and reporting system can be corrected.

The capacity for specific operational studies of the CSFA program should be developed as an adjunct to the analysis of client records. Operational studies in conjunction with the analysis of client records might lead to substantial reductions in operating expenses while maintaining or even increasing program effectiveness. If one area has to be compromised, it should be the large scale

demographic fertility surveys. As important as such data are, these surveys are expensive, require considerable technical expertise and are of less direct or immediate utility to the CSFA than are the other activities. Moreover, it might be possible to infer, albeit crudely, useable estimates from the recent National Census which are sufficient in the short term until the surveys can be conducted at a later date. In any case, it is hoped that all three types of analytic work can be accomplished.

3.3.2 The Zimbabwe Adult Literacy Teacher Training and Text Production Project

USAID/Zimbabwe has provided approximately \$1 million to assist the Adult Literacy Organization of Zimbabwe (ALOZ) to increase its number of teachers and provide refresher courses for its present teachers. The goal of the ALOZ is to develop the capacity to help roughly 45,000 individuals become literate. The project is very straightforward and uncomplicated; however, the evaluation plan states:

"One of the project outputs will be an improved information system for ALOZ. As part of this effort, ALOZ will collect baseline information from which to measure improvements in the economic and social well-being of those who benefit from the work of literacy teachers. Also data will be obtained

on the information and skills desired by potential literacy class participants."(from Attachment 1 - Program Description: 7-8)

Determining how the economic and social well-being of those who participated in the program has been improved as a result might be an excessive or unrealistic objective. A sample of even 5% of the total number of illiterates ALOZ plans to reach (i.e., 45,000) would constitute a survey of 2,250 persons. The expense of this in proportion to the total project budget seems unwarranted. This project is not an appropriate place to demonstrate that literacy and numeracy can contribute to improving an individual's lot in life. Even if this is not the case in Zimbabwe, then it is very likely due to factors other than the ineffectiveness of literacy or the ALOZ program. In other words, the mission should simply assume the commonsense connection between literacy and an improved quality of life. What is a sound idea is to obtain data on the types of information and skills potential participants desire. Participants could also be asked to complete a brief questionnaire concerning how the program could be made more relevant to their needs at the conclusion of their instruction (assuming, of course, they have become proficient enough to read the questions - perhaps a good test of the program in itself). This information could be very helpful in planning ALOZ's future programs.

3.3.3 The Zimbabwe Manpower Development Project - ZINMAN

USAID/Zimbabwe has obligated \$13.139 million to assist the MMPD provide training to Zimbabweans in areas where there are critical skilled manpower shortages. Special emphasis will be placed on correcting shortages which impede the GOZ's capacity to implement development projects. The project is primarily designed to fund overseas and in-country training, to upgrade teacher training institutions and to train GOZ staff in the ministries of Agriculture, Lands, Manpower, Health, Public Works, Transportation, Local Government and Housing. A minor data related component is possible. For the project evaluation, a small survey to ascertain whether those receiving training are used effectively in the ministries might be deemed necessary. There is little to comment on here about the survey since it is still tentative at this time. If it is undertaken, it would be informative to determine whether ministry operations were improved by the training; whether training led to upward job mobility; what patterns of job transition emerged; and how long individuals who received training remained in the public sector as compared to those who did not receive training.

4. Conclusion

A recurrent theme that has run throughout this report is that USAID/Zimbabwe's program and, therefore, its data requirements are premised on the ability of the GOZ to design, implement and evaluate projects supported by sector funding. The basic argument is made that the GOZ recognizes the key constraints which must be overcome to achieve national development objectives. For the most part, the GOZ will need only additional financial and technical assistance. USAID/Zimbabwe has designed a program which is carefully attuned to the immediate and longer-term needs of Zimbabwe with the use of sector funding. As a result of sector funding and the altered role USAID/Zimbabwe will have in assisting the GOZ, somewhat different information needs are created for the mission. In general, USAID/Zimbabwe will require data which measure the sector-wide effects of its program as opposed to the more focused effects - both in terms of the types of changes anticipated and the geographic area involved - normally associated with individual projects.

The special information needs created by sector funding as contrasted to a project level approach should be tempered by the understanding that the difference is essentially one of scope rather than content of the data required. That is, the specific variables which will be obtained for the sector program evaluations

could conceivably be used for individual project evaluations as well. For example, the list of variables cited for the Basic Education and Skills Training Program (e.g., the number of qualified elementary and secondary school teachers, student teacher ratios, the area served per school, etc.) could have just as readily been collected for individual projects for teacher training, for school construction or for improved staff assignment. The difference is, however, that for USAID/Zimbabwe, these variables will have to provide nation-wide coverage and represent sector-wide conditions, whereas project level data is typically restricted geographically to the project area or to specific effects. Yet there are certainly plenty of exceptions to that generalization. A project which will improve ministry operations needs system- or sector-wide data showing improvements resulting from more cost-effective procedures which are not different from the data needed for sector funded programs. The point is that USAID/Zimbabwe constitutes an important example of data use for the Agency. It might well be that a better investment for AID in data collection and analysis would be at the level USAID/Zimbabwe must operate at because of its program and not at the project-by-project level. This issue has arisen in one form or another in each of the five preceding reports on USAID mission support for data related activities. It might well be that USAID/Zimbabwe's involvement with and use of

quantitative data for program purposes could offer very useful examples or even serve as a model for other missions.